

**ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY  
STATE ASSURANCE FUND  
JULY 1, 2005 COST SCHEDULE**

**COST SCHEDULE ITEM CODE DESCRIPTIONS**

**NON-PHASE SPECIFIC ITEMS AND COSTS**

***PERSONNEL RATES***

1. Principal Level per hour  
Principal level activities include: direct professional staff; serve as technical expert or coordinator of large or technically complex sites; provide final review of project documents that legally bind the company; limited site visits on complex projects. Assume no per diem allowance.
2. Senior Level per hour  
Senior level activities include: project management/oversight; limited work plan preparation on complex sites; final report preparation/review; develop and oversee project budget; work plan review; coordinate with agency, client and contractors; hydrogeologic and contaminant modeling; equipment specification review; occasional site visits during site characterization activities; conduct field activities during complex remediation activities; supervise complex remediation activities. Assume no per diem allowance.
3. Project Level per hour  
Project level activities include: work plan preparation; field work preparation and planning; occasional site visits during site characterization activities; conduct field activities during complex remediation activities; report preparation and review; data review and analysis; equipment selection and design; supervise UST soil and groundwater characterization and remediation activities; oversight of waste characterization, transportation, and disposal. Assume no per diem allowance.
4. Staff Level per hour  
Staff level activities include: report preparation; oversight of remediation system installation, operation, and maintenance; site reconnaissance and mapping; obtain site access; installation of soil borings, groundwater monitoring wells and remedial injection and extraction wells; supervise UST removal, groundwater sample collection, soil removal, and other on-site remediation activities; assist with waste characterization, transportation, and disposal; assist in modeling and data analysis. Assume no per diem allowance.
5. Field Level per hour  
Field level activities include: field activities associated with periodic groundwater monitoring and monthly static water level/free product gauging; well purging and development; free product removal; sample collection, limited contractor supervision; field equipment/sample preparation; decontamination; other routine field activities. Assume no per diem allowance.
6. Technical Level per hour  
Technical level activities include: CADD work; generate new drawings, maps and plans; revisions to existing drawings, maps, and plans. Assume no per diem allowance.
7. Administrative Assistant Level per hour  
Administrative assistant level activities include: bookkeeping; invoice preparation; proofreading/editing; and some word processing, etc. Assume no per diem allowance.

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8. Word Processor Level per hour

Word processing level activities include: general clerical duties; word processing; documentation reproduction; report binding; filing; etc. Assume no per diem allowance.

### **CONTRACTOR PERSONNEL RATES**

9. Construction Field Supervisor Level per hour

Construction field supervisor level activities include: supervision of all logistical matters including pre- and post-field planning and scheduling activities; supervises construction projects requiring multiple construction personnel. Assume no per diem allowance.

10. Skilled Laborer Level per hour

Skilled laborer level activities include: small equipment operation, as well as tasks typically performed by individuals in the general construction, welding, electrical, and plumbing trades. A skilled laborer may hold a specific license or certification for a particular skill or craft. Assume no per diem allowance.

11. Unskilled Laborer Level per hour

Unskilled laborer level activities include general manual labor task (for example, a driller's helper). Assume no per diem allowance.

12. Equipment Operator Level per hour  
(Average Rate to Operate a Standard Piece of Equipment)

Equipment operator level activities include: operate heavy equipment including backhoes, dump trucks, excavators, loaders, and drill rigs (driller only), etc. Assume no per diem allowance.

### **MILEAGE RATES**

13. Consultant Mileage Rate (single person) per mile

Vehicle mileage rate. Note: the dollar per mile (\$/mile) mileage rate may not be marked up on a company-owned vehicle.

14. Consultant Mileage Rate (two people) per mile

Vehicle mileage rate. Note: the dollar per mile (\$/mile) mileage rate may not be marked up on a company-owned vehicle.

15. Contractor Daily Travel Mileage Rate per mile

Vehicle mileage rate. Use for contractor travel to and from the site on a daily basis.

### **PER DIEM RATES**

NOTE: minimum mileage for per diem eligibility is 50 miles one way.

16. Fieldwork Per Diem Without Overnight Stay per day

Fieldwork per diem without overnight stay requires a minimum 8-hour field day and is applicable to both consultants and contractors. A "field day" includes time for travel to and from the LUST site.

17. Fieldwork Per Diem With Overnight Stay per day

Fieldwork per diem with overnight stay (including lodging) is applicable to both consultants and contractors. An overnight stay is appropriate when time and/or distance prevents a return home at the end of a field day. Restrictions of duty time pursuant to A.R.S. Title 28, Chapter 14 and applicable rules imposed on a person holding a commercial driver license will be considered in the Departmental evaluation.

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### **MISCELLANEOUS**

18. Health and Safety Plan per plan

This task consists of the total personnel, equipment, and material costs (\$/plan) required to prepare a health and safety plan for corrective action activities in accordance with OSHA requirements. This task includes time for review; clerical support; and all other direct costs such as copying and binding.

19. Pursuit of Off-Site Access Agreement with a Private Entity Only per party solicitation

This task consists of the total personnel, equipment and material costs associated with pursuit of an off-site access agreement including review of tax assessor records. This task assumes that off-site access agreements are pursued in accordance with A.R.S. 49-1022. For purposes of this task, reimbursable site access efforts are limited to: two (2) written requests for access by the owner/operator, documented receipt of each written request, and, if necessary, a written request by the owner/operator that the ADEQ attempt to obtain access to the property. This task does not include permit costs, or document copying fees. This task assumes a round trip travel distance of 60 miles. Additional mileage over 60 miles will be evaluated on a per mile basis utilizing the appropriate consultant mileage rate set forth in Cost Schedule Item Codes 13 and 14.

### **EQUIPMENT RATES**

General Field Equipment used for various field activities. Rental rate is based on a daily cost unless otherwise specified.

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|-----|--|------------|
| 20. | Water Level Indicator  | per day    |
| 21. | Oil/Water Interface Probe  | per day    |
| 22. | pH, Temperature and Conductivity Meter                               | per day    |
| 23. | Photoionization Detector   | per day    |
| 24. | Flame Ionization Detector  | per day    |
| 25. | LEL/O2 Meter   | per day    |
| 26. | Dissolved Oxygen Meter   | per day    |
| 27. | 1.6" Diameter Disposable Bailer                                      | per bailer |
| 28. | 3.3" Diameter Disposable Bailer                                      | per bailer |
| 29. | Combustible Gas Indicator (CGI)                                      | per day    |
| 30. | Vapor Sampling Pump Kit  | per day    |
| 31. | Tedlar Bag (0.5L)  | per bag    |
| 32. | Manual-Operated Hand Auger Sampling Kit - (Hand Auger/Brass Sleeves) | per day    |
| 33. | Generator ( $\leq$ 6kw)  | per day    |
| 34. | Submersible Pump with Controller                                     | per day    |
| 35. | Peristaltic Pump   | per day    |

### **CONTRACTOR DRILLING-RELATED ACTIVITIES**

#### **SOIL BORING AND SAMPLING MOBILIZATION/DEMobilIZATION (MOB/DEMOb)**

Consists of the total personnel, equipment and material costs (\$/event) for the preparation and loading of all appropriate equipment, materials, and supplies, including support vehicles. This task also includes all costs associated with initial rig and support vehicle travel to the site, site clean-up and return to the yard. Assumes a round trip travel distance of 60 miles. Additional mileage over 60 miles will be evaluated on a per mile basis utilizing the per mile travel rate set forth in the soil boring and sampling travel rate. Note: this is a one-time charge per event.

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|-----|--|-----------|
| 36. | Hollow Stem Auger Drilling Method                                    | per event |
| 37. | All Other Drilling Methods (i.e. percussion, air rotary, roto sonic) | per event |

### ***SOIL BORING AND SAMPLING MOB/DEMOB ADDITIONAL TRAVEL***

This task consists of the total personnel, equipment and material costs (\$/mile) for additional mileage over the 60 miles included in contractor -mob/demob (Cost Schedule Item Codes 36 and 37). This task includes all costs associated with initial rig and support vehicle travel to and from the site. Site clean-up and return to the yard. Note: this is a one-time charge per event and does not pertain to drill crew travel on a daily basis.

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|-----|---|----------|
| 38. | Hollow Stem Auger Drilling Method - Mob/Demob Additional Travel<br>(additional mileage over the 60 miles included in #36) | per mile |
| 39. | All Other Drilling Methods - Mob/Demob Additional Travel<br>(additional mileage over the 60 miles included in #37)        | per mile |

### ***SOIL BORING AND SAMPLING***

This task consists of the total cost per foot (\$/foot) per boring for the following items/activities performed in accordance with ADEQ guidance at the time work is conducted. The task includes: drill rig support vehicles and crew; soil sampling at approximate 5 to 10 foot intervals; decontamination procedures; sampling equipment; moving between borehole locations; brass sleeves and associated sample collection and preservation materials, and drilling consumables/bits. Surface completion is not included in the per foot costs for drilling. This item applies to all borehole footage drilled. This rate does not include stockpile of soil (on visqueen); transportation and disposal of drill cuttings, decontaminate rinsate water or other investigation-derived fluids; concrete coring; restricted access; mob/demob or travel.

- |     |   |          |
|-----|---|----------|
| 40. | Hollow Stem Auger Drilling Method - Vertical Boring         | per foot |
| 41. | Hollow Stem Auger Drilling Method - Angle Boring            | per foot |
| 42. | Limited Access Drilling Method - Vertical Boring            | per foot |
| 43. | Air Rotary Drilling Method - Vertical Boring                | per foot |
| 44. | Rotosonic Drilling Method - Vertical Boring                 | per foot |
| 45. | Dual Wall Percussion Drilling Method - Vertical Boring      | per foot |
| 46. | Dual Wall Percussion Drilling Method - Angle Boring         | per foot |
| 47. | Soil Boring Abandonment by Grout:<br>(All boring diameters) | per foot |

This task consists of the total cost per foot (\$/foot) per boring for the labor and materials associated with the abandonment of soil borings by grouting. Assume no mob/demob or mileage.

## **CONTRACTOR WELL INSTALLATION - RELATED ACTIVITIES**

### ***DRILLING AND WELL INSTALLATION***

This task consists of the total cost per foot (\$/foot) per well for the following items/activities performed in accordance with ADEQ guidance at the time work is conducted. The task includes: drill rig support vehicles and crew; drilling the soil boring, soil sampling at approximate 5 to 10 foot intervals; decontamination procedures; sampling equipment; moving between wells; brass sleeves and associated sample collection and preservation materials; drilling consumables/bits; well installation; well materials. This task applies to all footages of the well installation [rate is bases on schedule 40 PVC piping and 30 feet of screen interval]. Surface completion is not

## July 1, 2005 SAF Cost Schedule Item Descriptions

included in the per foot costs for drilling and well installation. This rate does not include stockpile of soil (on visqueen); transportation and disposal of drill cuttings, decontaminate rinsate water or other investigation-derived fluids; concrete coring; restricted access; nested well configuration; mob/demob or travel.

48.	2-Inch Hollow Stem Auger	per foot
49.	4-Inch Hollow Stem Auger	per foot
50.	6-Inch Hollow Stem Auger	per foot
51.	2-Inch Air Rotary	per foot
52.	4-Inch Air Rotary	per foot
53.	6-Inch Air Rotary	per foot
54.	2-Inch Rotosonic	per foot
55.	4-Inch Rotosonic	per foot
56.	6-Inch Rotosonic	per foot
57.	2-Inch Dual Wall Percussion	per foot
58.	4-Inch Dual Wall Percussion	per foot
59.	6-Inch Dual Wall Percussion	per foot

### ***SURFACE COMPLETION***

This task consists of the total personnel, equipment and material costs (\$/well) required to install the appropriate size of concrete pad with traffic rated (flush) manhole/vault in accordance with applicable ASTM standards. Does not include mob/demob or travel.

60.	Well Surface Completion: Access Manhole <= 12"	per well
61.	Well Surface Completion: Access Manhole > 12" to <= 24"	per well

### ***WELL DEVELOPMENT MOB/DEMOB***

62.	Well Development Mob/Demob	per event
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This task consists of the total personnel, equipment and material costs (\$/event) for the preparation and loading of all appropriate equipment, materials, and supplies, including support vehicles. This task includes up to 60-miles round trip. Additional mileage over 60 miles will be evaluated on a per mile basis utilizing the per mile travel rate set forth in line item below. Note: this is a one-time charge per event.

63.	Well Development - Mob/Demob Additional Travel (Additional mileage over the 60 miles included in #62)	per mile
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This task consists of the total personnel, equipment and material costs (\$/mile) for additional mileage above the 60 miles included in contractor mob/demob (Cost Schedule Item Code 62). This task includes all costs associated with vehicle and labor travel to and from the site. Note: this is a one-time charge per event and does not pertain to work crew travel on a daily basis.

### ***WELL DEVELOPMENT***

This task consists of the total personnel, equipment, and material costs (\$/well) required to develop a newly installed well and includes all appropriate surface and downhole equipment, field instrumentation, and decontamination equipment. This rate does not include mob/demob/travel or consultant supervision; transportation and disposal of investigation-derived waste. Additionally, this task does not pertain to purging activities associated with groundwater monitoring and sampling.

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64.	2-Inch Well: Depth to Water Less Than 100 Feet	per well
65.	2-Inch Well: Depth to Water Equal to or Greater Than 100 Feet	per well
66.	4-Inch Well: Depth to Water Less Than 100 Feet	per well
67.	4-Inch Well: Depth to Water Equal to or Greater Than 100 Feet	per well
68.	6-Inch Well: Depth to Water Less Than 100 Feet	per well
69.	6-Inch Well: Depth to Water Equal to or Greater Than 100 Feet	per well

### MOBILE LABORATORY

70.	Mobile Lab Mob/Demob Rate For One Person Crew	per event
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Total mobile lab make ready - mob/demob (\$/event) includes the following: preparation and loading of all appropriate equipment, materials and supplies, including support vehicles; on-site equipment calibration; clean-up; and equipment decontamination. This task also includes all costs associated with initial vehicle travel to the site, site clean-up and return to the yard. This task assumes a round trip travel distance of 60 miles. Additional mileage over 60 miles will be evaluated on a per mile basis utilizing the per mile travel rate set forth in mob/demob additional travel rate. Note: this is a one-time charge per event and includes personnel travel. Assume a one person crew.

71.	Mobile Lab Mob/Demob Rate For Two Person Crew	per event
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Total mobile lab - mob/demob (\$/event) includes the following: preparation and loading of all appropriate equipment, materials and supplies, including support vehicles; on-site equipment calibration; clean-up; and equipment decontamination. This task also includes all costs associated with initial vehicle travel to the site, site clean-up and return to the yard. This task assumes a round trip travel distance of 60 miles. Additional mileage over 60 miles will be evaluated on a per mile basis utilizing the per mile travel rate set forth in mob/demob additional travel rate. Note: this is a one-time charge per event and includes personnel travel. Assume a two-person crew.

72.	Mobile Lab - Mob/Demob Additional Travel Rate For a One Person Crew	per mile
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Consists of the total personnel, equipment and material costs (\$/mile) for additional mileage above the 60 miles included in mobile lab mob/demob (Cost Schedule Item Code 70). This task includes all costs associated with vehicle and labor travel to and from the site. Note: this is a one-time charge per event and does not pertain to work crew travel on a daily basis. Assume a one person crew.

73.	Mobile Lab - Mob/Demob Additional Travel Rate For a Two Person Crew	per mile
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Consists of the total personnel, equipment and material costs (\$/mile) for additional mileage above the 60 miles included in mobile lab mob/demob (Cost Schedule Item Code 71). This task includes all costs associated with vehicle and labor travel to and from the site. Note: this is a one-time charge per event and does not pertain to work crew travel on a daily basis. Assume a two person crew.

74.	On-Site Mobile Lab Rate For One Person Crew Soil and Groundwater Analysis	per hour
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Total on-site mobile lab rate (\$/hour) for soil and groundwater analysis. Mobile lab must be ADHS-certified. Assume one person crew.

75.	On-Site Mobile Lab Rate For Two Person Crew Soil and Groundwater Analysis	per hour
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Total on-site mobile lab rate (\$/hour) for soil and groundwater analysis. Mobile lab must be ADHS-certified. Assume two person crew.

## July 1, 2005 SAF Cost Schedule Item Descriptions

### LABORATORY ANALYSES

#### **ORGANIC ANALYSIS**

per sample

- 76. HC by ADHS Method 418.1 AZ Using an ADHS-Certified Laboratory (soil only)
- 77. HC by ADHS Method 8015AZR1 (C1-C32 DRO-ORO) Using an ADHS-Certified Laboratory (soil only)
- 78. HC by EPA Method 8015 AZR1 (modified)/ (C6-C10) (air only)
- 79. HC (C6-C10)/BTEX by EPA Method 8015 AZR1 (modified) /8021B (air only)

#### **8021B SOIL**

per sample

- 80. Aromatic VOCs (BTEX) by EPA Method 8021B Using an ADHS-Certified Laboratory (soil only)
- 81. Halogenated VOCs (BTEX) by EPA Method 8021B; Arizona Target Compounds (AZ list) Using an ADHS-Certified Laboratory (soil only)
- 82. EPA Method 8021B; Arizona Target Compounds (AZ list) Using an ADHS-Certified Laboratory (soil only)
- 83. Full List VOCs by EPA Method 8021B Using an ADHS-Certified Laboratory (soil only)

#### **8021B GROUNDWATER**

per sample

- 84. Aromatic VOCs (BTEX) by EPA Method EPA 8021B Using an ADHS-Certified Laboratory (groundwater only)
- 85. Halogenated VOCs (BTEX) by EPA Method EPA 8021B Using an ADHS-Certified Laboratory (groundwater only)
- 86. EPA Method 8021B; Arizona Target Compounds (AZ list) Using an ADHS-Certified Laboratory (groundwater only)
- 87. Full List VOCs by EPA Method 8021B Using an ADHS-Certified Laboratory (groundwater only)

#### **8021B AIR**

per sample

- 88. Aromatic VOCs (BTEX) by EPA Method 8021B (air only)
- 89. Halogenated VOCs by EPA Method 8021B; Arizona Target Compounds (AZ list) (air only)

#### **8260B SOIL**

per sample

- 90. EPA Method 8260B; Arizona Target Compounds (AZ list) Using an ADHS-Certified Laboratory (soil only)
- 91. Full list VOCs by EPA Method 8260B Using an ADHS-Certified Laboratory (soil only)

#### **8260B GROUNDWATER**

per sample

- 92. EPA method 8260B; Arizona Target Compounds (AZ list) Using an ADHS-Certified Laboratory (groundwater only)

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93. Full List VOCs by EPA Method 8260B Using an ADHS-Certified Laboratory (groundwater only)

### **POLYNUCLEAR AROMATIC HYDROCARBONS (PAHS)**

per sample

94. Semi-Volatile Organics (PAHS) by EPA Method 8270C Using an ADHS-Certified Laboratory (soil only)
95. Semi-Volatile Organics (PAHS) by EPA Method 8270C Using an ADHS-Certified Laboratory (groundwater only)
96. PAHs by EPA Method 8310 Using an ADHS-Certified Laboratory (soil only)
97. PAHs by EPA Method 8310 Using an ADHS-Certified Laboratory (groundwater only)

### **BIOFEASIBILITY / BIOTREATABILITY ANALYSIS**

per sample

98. Phosphate-P by an Approved EPA/ASTM Method (soil only)
99. Nitrate + Nitrite-N by an Approved EPA/ASTM Method (soil only).
100. Nitrogen an ADHS-Certified Laboratory (soil only)
101. Alkalinity by EPA Method 310.1 an ADHS-Certified Laboratory (groundwater only)
102. Total Organic Carbon-- by EPA Method 415.1
103. Total Organic Carbon EPA Method 9060
104. Ammonia by EPA Method 350.3 or other ASTM Method (groundwater)
105. Sulfate by EPA Method 375.2 (groundwater only) or other ASTM Method
106. Nitrate by EPA Method 353.2 (groundwater only)
107. Alkalinity by EPA Method 310.1 modified
108. Total Dissolved Solids by EPA Method 160.1
109. Total Solids by EPA Method 160.3
110. Biochemical Oxygen Demand (BOD) by EPA Method 405.1[note: aqueous matrices only]

### **WASTE CHARACTERIZATION ANALYSIS**

per sample

111. HC by EPA Method 418.1 Using an ADHS-Certified Laboratory (groundwater only)

This analysis is for waste characterization and permit requirement purposes only. Note: this test is not to be used for UST regulatory purposes such as groundwater monitoring.



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- 112. TCLP Extraction Lead (Pb) Analysis by EPA Method 1311 and the Appropriate SW846 EPA Method Using an ADHS-Certified Laboratory
- 113. TCLP Extraction by EPA Method 1311 - Analysis of 8 RCRA Metals by Appropriate SW846 EPA Method, Using an ADHS-Certified Laboratory
- 114. Ignitability Test by EPA Method 1010 (liquid only)
- 115. Ignitability Test by EPA Method 1010 modified (soil only)
- 116. Corrosivity pH by EPA Method 9045 (soil only)
- 117. Corrosivity pH by EPA Method 9040 (groundwater only)
- 118. Paint filter Fee Liquids by EPA Method 9095
- 119. Polychlorinated Biphenyls (soil) by EPA Method 8082
- 120. Lead by an Approved SW846 EPA Method Using an ADHS-Certified Laboratory (soil only).

### OTHER ACTIVITIES

#### ***INVESTIGATIVE DERIVED WASTE***

- 121. Containerized Contaminated Water Disposal per drum  
Activity includes the proper disposal of containerized contaminated water at an ADEQ approved facility. This price does not include consultant's time to characterize or manifest the water for disposal and/or analytical cost. Required supporting documentation is the primary service provider invoice, subcontractor invoice(s) and the manifest from the disposal facility on file with ADEQ.
- 122. Containerized Contaminated Soil Disposal per drum  
Activity includes the proper disposal of containerized contaminated soil at an ADEQ approved facility. This price does not include consultant's time to characterize or manifest the soil for disposal. Required supporting documentation is the primary service provider invoice, subcontractor invoice(s) and the manifest from the disposal facility on file with ADEQ.
- 123. Landfill Disposal of Petroleum Contaminated Soil per ton  
Consists of the total price per ton (\$/ton) for landfill disposal of petroleum contaminated soil at a properly permitted landfill facility. This task does not include mob/demob or transportation costs for equipment and/or personnel. Required supporting documentation is the primary service provider invoice, subcontractor invoice(s) from landfill and the manifest from the disposal facility on file with ADEQ.

**ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY  
STATE ASSURANCE FUND  
JULY 1, 2005 COST SCHEDULE**

**SCHEDULE OF CORRECTIVE ACTION COST DESCRIPTIONS –  
PHASE SPECIFIC ITEMS AND COSTS**

NOTE: Additional activities (without a cost schedule item code) that are associated with each phase can be located on the Phase Code Table. Also, please refer to the Introduction document to the schedule of corrective action costs.

**PHASE C – SITE INVESTIGATION**

**PHASE D – GROUNDWATER MONITORING**

**PHASE E – AQUIFER CHARACTERIZATION**

**PHASE F – FREE PRODUCT REMOVAL**

**PHASE G – PILOT TESTING**

**PHASE J – LUST CLOSURE AND DECOMMISSIONING**

**PHASE M – RISK-BASED EVALUATION**

**PHASE O – INITIAL RESPONSE AND/OR INITIAL ABATEMENT**

There are no phase-specific item codes for the Phases referenced above.

**PHASE A – RELEASE CONFIRMATION**

124. 14-Day Release Confirmation Report per report

This task consists of the total personnel, equipment and material cost to prepare and submit the release confirmation report in response to a confirmed release based on the presence of free product or laboratory detectable contaminant concentrations that are attributed to an underground storage tank. This report is to be prepared in accordance with ADEQ release reporting requirements of A.R.S. §49-1004. This task also includes a telephone call for 24-hour notification.

**PHASE B – INITIAL SITE CHARACTERIZATION**

125. Site Reconnaissance and Field Receptor Survey (1/4 Mile) lump sum (per site)

This task consists of a site feature inspection of the immediate site and surrounding properties. The inspection will note tank location, dispenser location, wells, and other site features. Potential migration pathways such as utility lines, storm sanitary sewers, catch basins and drainage ditches are also to be identified. The site reconnaissance should suffice for development of a health and safety plan and locating assessment and remediation activities. This task also includes the total personnel, equipment and material costs to conduct a physical search within a 1/4 mile radius of the site to locate private wells or other receptors and typically does not require a door-to-door search. The final product from this task is a field grade map and notes to support subsequent activities. The final work product summarizing these activities must be documented within the LUST file to be considered for reimbursement of claimed expenses. This task assumes a round trip travel distance of 60 miles. Additional mileage over 60 miles will be evaluated on a per mile basis utilizing the appropriate consultant mileage rate set forth in Cost Schedule Item Codes 13 and 14.

**PHASE H – REMEDIAL RESPONSE**

126. Pre-Built Remedial Engineering Design (active remedial system) per design

This task consists of the total personnel, equipment, and material costs (\$/design) necessary to complete pre-built remedial engineering design package for an active remedial system. At a minimum, the design package should include all subgrade and surface component specifications, site plans and construction details.

Note: this item pertains to design packages prepared following CAP approval to obtain construction estimates and permits, unless remediation is implemented when a CAP is not requested or required by ADEQ.

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### PHASE I – OPERATION AND MAINTENANCE

#### *THERMAL OXIDIZER*

Equipment rental (\$/month) to include skid or trailer mounted vapor extraction equipment including vacuum blower and water knockout, and thermal oxidizer with appropriate gauges and equipment necessary to monitor system effectiveness and meet appropriate permitting (and other) regulatory requirements. Cost includes a chart recorder capable of recording on a weekly or monthly basis. Does not include the cost of utilities to operate the system.

127.	SVE System with Thermal Oxidizer (100 cfm)	per month
128.	SVE System with Thermal Oxidizer (250 cfm)	per month
129.	SVE System with Thermal Oxidizer (500 cfm)	per month
130.	SVE System with Thermal Oxidizer (700 cfm)	per month

#### *CATALYTIC OXIDIZER*

Equipment rental (\$/month) to include skid or trailer mounted vapor extraction equipment including vacuum blower and water knockout, and catalytic oxidizer with appropriate gauges and equipment necessary to monitor system effectiveness and meet appropriate permitting (and other) regulatory requirements. Cost includes a chart recorder capable of recording on a weekly or monthly basis. Does not include cost of utilities to operate the system.

131.	SVE System with Catalytic Oxidizer (100 cfm)	per month
132.	SVE System with Catalytic Oxidizer (250 cfm)	per month
133.	SVE System with Catalytic Oxidizer (500 cfm)	per month

#### *AIR SPARGE SYSTEM*

Monthly rental (\$/month) to include skid mounted air sparge system including blower or compressor to generate up to 100 cfm flow rate and up to 12 psi pressure, and appropriate gauges and control panel. Does not include cost of utilities to operate the system.

134.	Air Sparge System (up to 100 cfm and up to 12 psi)	per month
135.	Air Sparge System (up to 100 cfm and 12 to 100 psi)	per month

#### *BLOWER*

Price is per month for an explosion proof, regenerative blower with specified cfm capacity.

136.	Blower (160 cfm)	per month
137.	Blower (280 cfm)	per month

### PHASE K – REMEDIAL EXCAVATION

138.	Remedial Excavation	per cubic yard
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This task consists of the total price per cubic yard (\$/cy) for bulk soil excavation (contaminated soil). Includes total personnel and equipment necessary to complete soil excavation and loading of non-containerized bulk soil. Cost does not include trenching around utility lines and/or building foundations. Note: Resurfacing is not included in this task.

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139. Backfill and Compaction of Remedial Excavation per ton

This task consists of the total price per ton (\$/ton), for total personnel and equipment costs, necessary to backfill and compact a remedial excavation. This item includes all mob/demob of personnel and equipment. This task assumes the use of import backfill material and includes density testing and reporting. Note: Resurfacing is not included in this task.

### PHASE L – TANK CLOSURE

140. Tank Closure Contractor Mob/Demob per event

Consists of the total personnel, equipment and material costs (\$/event) preparation and loading of all appropriate equipment, materials, and supplies, including support vehicles. This task also includes all costs associated with initial vehicle travel to the site, site clean-up and return to the yard. This task assumes a round trip travel distance of 60 miles. Additional mileage over 60 miles will be evaluated on a per mile basis utilizing the per mile travel rate set forth in mob/demob additional travel rate. Note: this is a one-time charge per event and includes personnel travel.

141. Tank Closure Contractor Mob/Demob Additional Travel  
(Additional mileage over the 60 miles included in #136) per mile

Consists of the total personnel, equipment and material costs (\$/mile) for additional mileage above the 60 miles included in contractor mob/demob (Cost Schedule Item Code 136). This task includes all costs associated with vehicle and labor travel to and from the site. Note: this is a one-time charge per event and does not pertain to work crew travel on a daily basis.

### PHASE N- REPORTING

**Note: Please see General Notes for information regarding how to claim reporting costs.**

#### *ADEQ-APPROVED SITE CHARACTERIZATION REPORT (SCR)*

This task consists of the total personnel, equipment, and material costs (\$/report) to complete a SCR. The SCR must include a site conceptual model, data collection, evaluation and documentation including all figures and reports in the format specified by the ADEQ site characterization manual (SCM) guidance and the 2002 Corrective Action Rule (if applicable). Required attachments to the SCR include a site location map, site plan, soil contamination map, geologic cross sections, soil sampling analytical results, laboratory reports, chain-of-custody and laboratory QA/QC. Activities include the personnel time for preparation of the report including time for review, clerical support, and all other direct costs such as copying, binding and postage. The SCR should only be submitted if the site has been adequately defined in accordance with ADEQ guidance.

142. ADEQ-Approved Site Characterization Report up to Four (4) Soil Borings per report

143. ADEQ-Approved Site Characterization Report  
up to Four (4) Groundwater Monitor Wells per report

144. ADEQ-Approved Site Characterization Report  
up to Four (4) Soil Borings and Four (4) Groundwater Monitor Wells per report

145. Additional Cost per Each Additional Soil Boring over Four (4)-  
ADEQ-Approved Site Characterization Report per boring

This additional cost consists of the total personnel, equipment, and material costs (\$/boring) for each additional boring over and above four (4) soil borings.

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146. Additional Cost per Each Additional Groundwater Monitor Well over Four (4) -  
ADEQ- Approved Site Characterization Report per well

This additional cost consists of the total personnel, equipment, and material costs (\$/well) for each additional well over and above four (4) groundwater monitor wells.

### *ADEQ-APPROVED CORRECTIVE ACTION PLAN*

147. ADEQ-Approved Corrective Action Plan (CAP) per CAP

This task consists of the total personnel, equipment, and material costs (\$/report) required to complete an approved CAP. The CAP must be prepared in accordance with ADEQ corrective action guidance, must include a discussion of feasibility evaluation, pilot testing and results, and be approved by ADEQ.

### *GROUNDWATER MONITORING REPORT*

This task consists of the total personnel, equipment, and material costs (\$/report) necessary to complete a periodic groundwater monitoring report. The report conveys results of the first and any subsequent sampling events conducted at the site and must include the following: complete description of all work completed; periodic water-level-elevation data for each groundwater monitor and recovery well; periodic free product thickness data for each well containing free product; analytical results for groundwater sampling site diagrams, a groundwater contaminant concentration map, up to two (2) hydrographs and analysis of data. Activities for the report include the personnel time for preparation, including time for review, clerical support, and all other direct costs such as copying, binding and postage.

148. First Periodic Groundwater Monitoring Report  
up to Four (4) Groundwater Monitor Wells per report

149. Subsequent Periodic Groundwater Monitoring Report  
up to Four (4) Groundwater Monitor Wells per report

150. Additional Cost for Each Additional Groundwater Monitor Well over Four (4) -  
for the First Periodic Groundwater Monitoring Report per well

This additional cost consists of the total personnel, equipment, and material costs (\$/well) for each additional well over and above the (4) groundwater monitor wells comprising the initial periodic groundwater monitoring report.

151. Additional Cost for Each Additional Groundwater Monitor Well over Four (4) -  
for a Subsequent Periodic Groundwater Monitoring Report per well

This additional cost consists of the total personnel, equipment, and material costs (\$/well) for each additional well over and above the (4) groundwater monitor wells comprising the subsequent periodic groundwater monitoring report.

### *REMEDIAL PROGRESS REPORT*

This task consists of the total personnel, equipment, and material costs (\$/report) required to prepare a periodic remedial progress report for passive and/or active remediation. This report must include a description of all work performed; hydrocarbon recovery; periodic monitoring results; influent and effluent system sampling results; amount of media treated; site diagrams; and analysis of current and historical data. Task includes personnel time for preparation of the report including time for review, clerical support, and all other direct costs such as copying, binding, and postage.

152. Initial Periodic Remedial Progress Report (soil and groundwater) per report

153. Subsequent Periodic Remedial Progress Report (soil and groundwater) per report

## July 1, 2005 SAF Cost Schedule Item Descriptions

### *CORRECTIVE ACTION COMPLETION REPORT*

154. Corrective Action Completion Report

(Previously Titled “Post Remediation Closure Report”)

per report

\*Costs for this report should be claimed with time and materials detail. The total cost for the report consists of the personnel, equipment and material costs (\$/report) required to prepare a corrective action completion report. This report must include a description of all work performed in association with confirmation borings, analytical results, amount of media treated, site diagrams, and analysis of current data. This report is typically submitted when analytical results indicate that contaminant concentrations have been reduced to levels below applicable regulatory thresholds. Information contained within this report must ultimately result in case closure. Associated activities include the personnel time for preparation of the report including time for review, clerical support, and all other direct costs such as copying and binding.

### **PHASE P – WORK PLAN AND SAF APPLICATION PREPARATION**

#### *WORK PLAN PREPARATION*

##### Site Characterization Work Plan

This task consists of the total personnel, equipment, and material costs (\$/plan) required to prepare a site specific work plan as required and approved by ADEQ or for SAF preapproval purposes. This report includes property background, UST history discussion, and discussion of proposed activities and preparation of cost estimates and budgets. These costs include: senior level review of document, clerical support, and all other direct costs such as copying, binding, and postage. The \$/plan cost includes modification, revisions, and re-submittals necessary to obtain agency approval. The \$/plan cost does not include mileage, per diem, or other out-of-office expenses. Note: does not include SAF preapproval application costs.

155. ADEQ-Approved Site Characterization Work Plan (soil only)

per plan

156. ADEQ-Approved Site Characterization Work Plan (soil and groundwater)

per plan

##### Remediation Work Plan

This task consists of the total personnel, equipment, and material costs (\$/plan) for preparation of a work plan to implement the ADEQ-Approved CAP (proposed activities should not exceed three years in duration). The work plan should reference the ADEQ-Approved CAP and summarize proposed remedial activities. These costs include: senior level review of document, clerical support, and all other direct costs such as copying, binding, and postage. The cost includes modification, revisions, and re-submittals necessary to obtain agency approval. The \$/plan cost does not include mileage, per diem, or other out-of-office expenses. Note: does not include SAF preapproval application costs.

157. ADEQ-Approved Work Plan to Implement an ADEQ-Approved  
Corrective Action Plan

per plan

## July 1, 2005 SAF Cost Schedule Item Descriptions

### *SAF APPLICATION PREPARATION*

This task consists of the total personnel, equipment, and material costs (\$/application) required to prepare an SAF application for pre-approval, reimbursement or direct payment. Activities include preparation of the application including review, clerical support, and all other direct costs such as copying, binding and postage. For a preapproval application, the task does not include any work plan preparation; only preparation of the SAF application.

- |      |   |                 |
|------|---|-----------------|
| 158. | ADEQ-Approved Preapproval Application   | per application |
| 159. | Reimbursement or Direct Payment Application<br>[Less Than or Equal to two (2) Primary Provider Invoices]                          | per application |
| 160. | Reimbursement or Direct Payment Application<br>[Greater Than two (2) Less Than or Equal to Five (5)<br>Primary Provider Invoices] | per application |
| 161. | Reimbursement or Direct Payment Application<br>[Six (6) or More Primary Provider Invoices]  | per application |